

A B S T R A C T

A phase-change memory device has a plurality of first wiring lines WL extending in parallel to each other, a plurality of second wiring lines BL which are disposed to cross the first wiring lines WL while being separated or isolated therefrom, and memory cells MC which are disposed at respective cross points of the first wiring lines WL and the second wiring lines BL and each of which has one end connected to a first wiring line WL and the other end connected to a second wiring line BL. The memory cell MC has a variable resistive element VR which stores as information a resistance value determined due to phase change between crystalline and amorphous states thereof, and a Schottky diode SD which is connected in series to the variable resistive element VR.